Maryland Historical Trust

Maryland Inventory of Historic Properties number: BA-2651

Name: Carls Rd over Amtrak RR (B-0078)

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridge received the following determination of eligibility.

MARYLAND HISTORICAL TRUST

Eligibility Recommended ___X___ Eligibility Not Recommended _____

Criteria: ____A ____B ____C ____D Considerations: ___A ___B ___C ___D ___E ___F ___G __None

Comments: _____

_____

_____

Reviewer, OPS: Anne E. Bruder _____ Date: 3 April 2001

Reviewer, NR Program: Peter E. Kurtze _____ Date: 3 April 2001

9700290

INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: Earls Road Bridge (Bridge No. 78) Survey Number: BA-2651

Project: Replace Earls Road Bridge Agency: FHWA/Baltimore County

Site visit by MHT Staff: X no ___ yes Name _____ Date _____

Eligibility recommended X Eligibility **not** recommended ____

Criteria: X A ___B X C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G ___None

Justification for decision: (Use continuation sheet if necessary and attach map)

Based on the available information, the Earls Road Bridge, which carries Earls Road over AMTRAK (formerly the B & O) near Chase, in southeastern Baltimore County, is a triple-span, concrete T-beam constructed in 1916. It retains integrity of its character defining elements, lacks major alterations and is in fair condition. The bridge is eligible under Criterion A for its association with the movement to eliminate at-grade railroad and highway crossings prior to the Grade Elimination Act of 1927. The bridge is eligible under Criterion C as a representative example a concrete T-beam bridge from the early part of the 20th century. The Earls Road Bridge was inventoried as part of the statewide inventory of historic bridges undertaken by SHA. In June 1996, the interagency bridge review committee evaluated the bridge and preliminarily determined it to be eligible for the National Register.

Documentation on the property/district is presented in: Project File, Maryland Inventory form BA-2651

Prepared by: Margaret Bishop (KCI) 1995 form, supplemental info by PAC Spero (2/6/97)

Elizabeth Hannold
Reviewer, Office of Preservation Services

March 5, 1997
Date

NR program concurrence: X yes ___ no ___ not applicable

Peter A. Pantuso
Reviewer, NR program

3/5/97
Date

Survey No. BA-2651

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

____	Eastern Shore	(all Eastern Shore counties, and Cecil)
____	Western Shore	(Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
__X__	Piedmont	(Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
____	Western Maryland	(Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

____	Paleo-Indian	10000-7500 B.C.
____	Early Archaic	7500-6000 B.C.
____	Middle Archaic	6000-4000 B.C.
____	Late Archaic	4000-2000 B.C.
____	Early Woodland	2000-500 B.C.
____	Middle Woodland	500 B.C. - A.D. 900
____	Late Woodland/Archaic	A.D. 900-1600
____	Contact and Settlement	A.D. 1570-1750
____	Rural Agrarian Intensification	A.D. 1680-1815
____	Agricultural-Industrial Transition	A.D. 1815-1870
__X__	Industrial/Urban Dominance	A.D. 1870-1930
____	Modern Period	A.D. 1930-Present
____	Unknown Period (___ prehistoric	___ historic)

III. Prehistoric Period Themes:

____	Subsistence
____	Settlement
____	Political
____	Demographic
____	Religion
____	Technology
____	Environmental Adaption

IV. Historic Period Themes:

____	Agriculture
__X__	Architecture, Landscape Architecture, and Community Planning
____	Economic (Commercial and Industrial)
____	Government/Law
____	Military
____	Religion
____	Social/Educational/Cultural
__X__	Transportation

V. Resource Type:

Category: Structure

Historic Environment: Rural

Historic Function(s) and Use(s): Transportation-vehicular

Known Design Source: State Roads Commission

MARYLAND INVENTORY OF HISTORIC PROPERTIES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION
MARYLAND HISTORICAL TRUST

MHT NO. BA-2651

NAME AND SHA NO.: B-0078

LOCATION
Road Name and Number: Earls Road over Amtrak Railroad
City/Town: Chase X vicinity
County: Baltimore

Ownership: _ State X County _ Municipal _ Other

Bridge projects over: _ Road X Railway _ Water _ Land

Is bridge located within designated district?: _ yes X no
___ NR listed district _ NR determined eligible district
___ locally designated _ other
Name of District _

BRIDGE TYPE

__ Timber Bridge
__ Beam Bridge __ Truss-Covered __ Trestle __ Timber-and-Concrete

__ Stone Arch Bridge

__ Metal Truss Bridge

__ Moveable Bridge
__ Swing __ Bascule Single Leaf __ Bascule Multiple Leaf
__ Vertical Lift __ Retractile __ Pontoon

__ Metal Girder
__ Rolled Girder __ Rolled Girder Concrete Encased
__ Plate Girder __ Plate Girder Concrete Encased

__ Metal Suspension

__ Metal Arch

__ Metal Cantilever

X Concrete
_ Concrete Arch _ Concrete Slab X Concrete Beam _ Rigid Frame
_ Other Type Name ___

DESCRIPTION

Describe the Setting:

Bridge B-0078 carries Earls Road over the Amtrack Railroad tracks in Baltimore County. Earls Road runs north and south, while the 4-track-wide railroad corridor follows an east-west direction. Located in the Piedmont physiographic province, a region characterized by variegated topography created by rivers and streams cutting through the valley, the bridge is surrounded by several residences and open fields.

Describe the Superstructure and Substructure:
(Discuss points identified in Context Addendum, Section C)

Bridge B-0078, a triple-span concrete tee-beam structure, has a total bridge length of 102-5'" and is skewed 19 degrees. The center span measures 35'-6", the south span measures 32'-3", and the north span measures 34'-8". The 22'-5" wide roadway carries two lanes of traffic. The superstructure incorporates four girders, a chamfered parapet topped with a solid aluminum fence, and a bituminous surface. The substructure consists of concrete abutments, wing walls, and two piers.

Details of the bridge's present condition from a 1993 inspection report include hairline cracks on the parapet, numerous failed patch areas on the underside of the deck and tee-beams. Other deficiencies noted in the superstructure include spalls with exposed rebar, minor cracks, honeycombing, and delaminated areas. The substructure exhibits cracking, efflorescence and exposed rebar in the piers, and spalling, cracking and efflorescence in the abutments.

According to county records, this bridge is scheduled for replacement in fiscal year 1998.

A survey of historic concrete beam bridges undertaken by the Maryland State Highway Administration in the Fall of 1995 identified 113 bridges of that type located throughout the state. Nine percent (10) of that total were triple-span bridges; 37 bridges (33%) were multiple span.

Discuss major alterations:

Available documentary evidence indicates that this bridge has not undergone any major alterations. However, it appears that the aluminum fence atop the parapets is not an original feature of the bridge.

HISTORY

When Built: 1916
Why Built: Statewide road improvement programs and local transportation needs.
Who Built: State Roads Commission of Maryland
Who Designed: Unknown
Why Altered: N/A
Was this bridge built as part of an organized bridge building campaign?: Yes

This bridge was constructed as part of the movement to eliminate at-grade railroad and highway intersections. This action was later mandated by the Grade Crossing Elimination Act passed in 1927.

SURVEYOR ANALYSIS

This bridge may have NR significance for association with:

_ A (Events) _ B (Person) _ C (Engineering/Architectural Character)

Was this bridge constructed in response to significant events in Maryland or local history?

In many ways, Baltimore County was a leader in modern bridge construction, affecting the materials and design of concrete structures throughout the state. Baltimore was the first of the state's counties to hire a professional engineer to oversee construction and maintenance of its roads. Early Maryland Geological Survey and State Road Commission Reports relate that the county began to build concrete bridges and culverts in 1901, and that by 1903 had constructed many good roads and replaced old wooden bridges with permanent structures. The "progressive work" by the Baltimore county engineer in 1903 was evidenced by the first reinforced concrete highway bridge built in the state. The method of reinforcing concrete using steel rods embedded in concrete beams allowed the girders to withstand heavy loads with no steel surface exposed to air, thereby significantly reducing maintenance costs.

A 1906 state highway report stated that improvement projects begun in 14 counties included the widening, straightening, and/or grading of many existing roads, as well as the construction of many new bridges to carry these rebuilt roads. The rapid increase of automobile, truck, and bus traffic during the early decades of the twentieth century prompted the replacement of old bridges with new, modern concrete structures. During the 1920s, the State Road Commission embarked upon a plan to both improve the safety and comfort of the primary roads while also building up the secondary and farm-to-market road system. The establishment of district engineering offices during the 1910s, the creation of a separate bridge department within the State Road Commission in 1920, and the development of standard statewide specifications for bridges undoubtedly aided the

construction of nearly 750 concrete bridges and culverts between 1902 and 1929 in Baltimore County. Finally, the elimination of toll roads, many of which ran through the county and terminated in Baltimore city, may have induced the improvement of additional county roads in an effort to provide unlimited access through the county.

When the bridge was built, and/or given a major alteration, did it have a significant impact on the growth and development of the area?

No, the construction of this bridge did not play an active role in the growth or development of this portion of Baltimore County.

Is the bridge located in an area which may be eligible for historic designation, and would the bridge add or detract from the historic and visual character of the possible district?

No, this bridge is not located within an area which is eligible for historic district designation.

Is the bridge a significant example of its type?

Yes, due to its apparent lack of major alterations and fair condition, this bridge stands as a significant example of its type.

Does the bridge retain integrity of the important elements described in the Context Addendum?

Yes, this bridge retains integrity of its character defining elements. Although recent reports indicate that the structure exhibits severe signs of age and wear, including cracking and spalling of the parapets, abutments, and piers, none of these character defining elements has been replaced or removed. The bridge, however, is scheduled for replacement within the next two years.

Is the bridge a significant example of the work of the manufacturer, designer, and/or engineer, and why?

No, this bridge is not a significant example of the work of the manufacturer, designer, and/or engineer. This bridge was most likely built to standard state specifications, which corresponded to the structure's span length and year.

Should this bridge be given further study before significance analysis is made, and why?

No, this bridge should not receive further study.

BIBLIOGRAPHY

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1906 *First Report on State Highway Construction (May 1905-January 1906).* The Johns Hopkins Press, Baltimore.

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Johnson, A.N.
1903 *Third Report on the Highways of Maryland (1902-1903).* The Johns Hopkins Press, Baltimore.

LeViness, Charles T.
1958 *A History of Road Building in Maryland.* State Roads Commission of Maryland, Baltimore.

P.A.C. Spero and Company and Louis Berger and Associates, Inc.
1994 *Historic Bridges in Maryland: Historic Context Report.* Prepared for Maryland State Highway Administration, Maryland State Department of Transportation, Baltimore.

State Roads Commission of Maryland
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SURVEYOR INFORMATION

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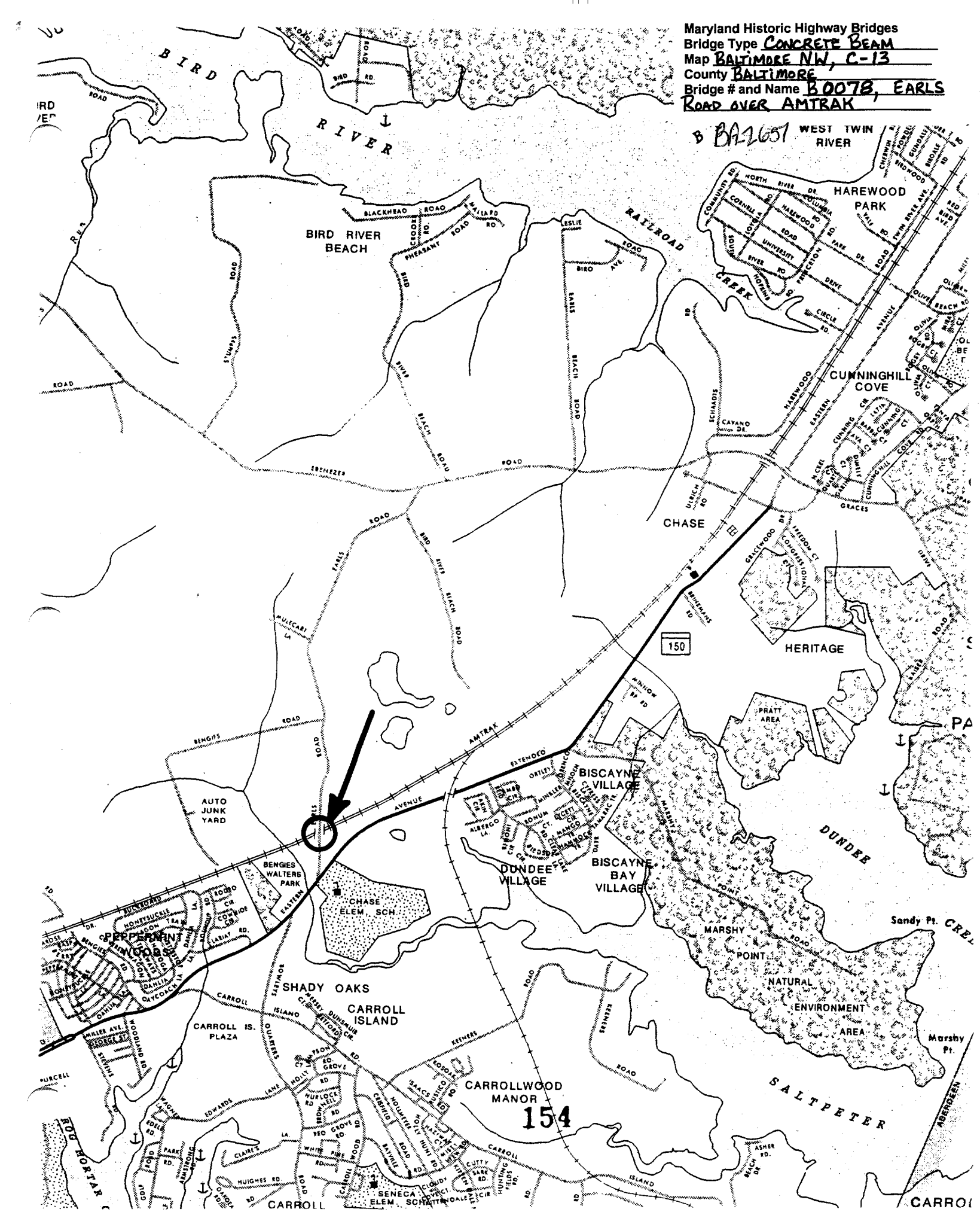
Maryland Historic Highway Bridges
Bridge Type CONCRETE BEAM
Map BALTIMORE NW, C-13
County BALTIMORE
Bridge # and Name B0078, EARLS ROAD OVER AMTRAK
B BA-2651
BIRD RIVER
BIRD RIVER BEACH
WEST TWIN RIVER
HAREWOOD PARK
CUNNINGHILL COVE
CHASE
HERITAGE
BISCAYNE VILLAGE
DUNDEE VILLAGE
BISCAYNE BAY VILLAGE
DUNDEE
MARSHY POINT NATURAL ENVIRONMENT AREA
SALTPETER
CHASE ELEM. SCH.
BENGIES WALTERS PARK
AUTO JUNK YARD
PEPPERMINT WOODS
SHADY OAKS
CARROLL ISLAND
CARROLL IS. PLAZA
CARROLLWOOD MANOR
SENECA ELEM. SCHOOL
AMTRAK
RAILROAD
150
154

Inventory # BA-2651

Name B007B - EARLS RD OVER AMTRAK
County/State BALTIMORE COUNTY/MD
Name of Photographer DAVE DIEHL
Date 1/95

Location of Negative SHA

Description NORTH APPROACH LOOKING SOUTH

Number 1 ~~16~~ of ~~39~~ 4

Inventory # BA-2651

Name BOOTH-EARLS RD OVER AMTRAK

County/State BALTIMORE COUNTY/MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description WEST ELEVATION LOOKING SOUTHEAST

Number 2 ~~1~~ of ~~39~~ 4

Inventory # BA-2651

Name B0078- EARLS RD OVER AMTRAK

County/State BALTIMORE COUNTY / MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description EAST ELEVATION LOOKING SOUTHWEST

Number 3 ~~20~~ of ~~37~~ 9


30

Inventory # BA-2651

Name B0078-EARLS RD OVER AMTRAK

County/State BALTIMORE COUNTY/MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description SOUTH APPROACH LOOKING NORTH

Number 4 ~~21~~ of ~~39~~ 4